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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,395	11/13/2001	Philippe Thiebaud	A34754-070337.0285	1077

21003 7590 06/23/2003

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EXAMINER

MAKI, STEVEN D

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 06/23/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/014,395

Applicant(s)

THIEBAUD, PHILIPPE

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1) The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the foreign application for patent or inventor's certificate on which priority is claimed pursuant to 37 CFR 1.55, and any foreign application having a filing date before that of the application on which priority is claimed, by specifying the application number, country, day, month and year of its filing.

The declaration incorrectly identifies the filing date of France 00/14674 as being 13/11/01 (the correct filing date is 13 November 2000).

2) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3) Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 1-12, it is unclear how many well(s) are required in the front section and rear section of each tread element. It is unclear if claims 1 and 11 require the limitation of:

(1) the number of wells in the **front section** is greater than or equal to one and the number of wells in the **rear section** is greater than or equal to zero;

(2) the number of wells in the **front section** is greater than or equal to two and the number of wells in the **rear section** is greater than or equal to zero;

(3) the number of wells in the **front section** is greater than or equal to one and the number of wells in the **rear section** is greater than or equal to one;

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(4) the number of wells in the **front section** is greater than or equal to two and the number of wells in the **rear section** is greater than or equal to two.

Examples: In claim 1, the description "each tread pattern that is provided with at least one well" indicates that limitation #1 is intended whereas the description at the last four lines of claim 1 comparing the volumes indicates that that limitation # 4 is intended. In claim 11, the description of "each tread elements is provided with wells" indicates that either limitation # 2 or limitation #3 is intended whereas the description at the last three lines of claim 11 comparing the volumes indicates that limitation #4 is intended.

4) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Japan '606

6) **Claims 1, 2, 6, 7, 8, 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan '606 (JP 3-86606).**

The claimed wells read on dented regions for reducing heat generation. The description of preferred direction is merely a description of intended use. The claimed "well" reads on the dented region of Japan '606. As to the claimed volume difference, note (1) Japan '606's teaching that the total area of the dented region at the kick off is greater than the total area at the step in and (2) the cross sectional views of Japan '606 which show the use of the same depth for the dented regions (see figures 2b and 2c). It is acknowledged that Japan '606 locates the larger volume dented region (larger volume well) at the rear section of the block instead of the front section of the block. However, the description of the preferred direction of travel in claims 1 and 11 fails to require structure different from that disclosed by Japan '606. This is especially true as to claim 1 since the tread of claim 1 can be applied to a tire carcass such that the greater volume wells are located at the rear section. In other words, claim 1 fails to exclude *using* the claimed tread such that it is oriented opposite the preferred direction of travel.

Japan '712

7) **Claims 1 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan '712 (JP 62-241712).**

The claimed wells read on holes which communicate with a side wall of the block. The claimed wells read on the holes 52, 55. The claimed volume difference is inherent in the tread of figure 9 or figure 10 (each of these treads comprising blocks

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having more holes at front section than the rear section and blocks having more holes at a rear section than the front section).

8) **Claims 2, 4 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '712 (JP 64-241712).**

As to claim 2, it would have been obvious to provide the holes in Japan '712 with a depth greater than 5 mm since Japan '712 teaches providing the hole with a depth corresponding to the depth of the main grooves and it is taken as well known / conventional in the tread art to provide main grooves with a depth greater than 5 mm in order to improve drainage / wet traction.

As to claims 4, 11 and 12, the section of 0.2 - 12 mm<sup>2</sup> would have been obvious and could have been determined without undue experimentation in view of Japan '712's teaching to use the holes to improve drainage. With respect to claim 4, one of ordinary skill in the art would have appreciated the use of wells arranged along two lines depending on the desired drainage.

Suzuki et al

9) **Claims 1, 4, 6-8 and 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al (US 6405772).**

The claimed wells read on isolated sipes ("rectangular wells"). Claims 1, 4, 6-8 and 11-12 are anticipated by the figure 2 embodiment of Suzuki et al. The claimed wells read on the isolated sipes 12 which have a width of 0.2-0.4 mm. The claimed difference in volume is caused by the difference in length of the sipes. In the example, the sipes have a width of 0.3 mm and lengths are 20 mm, 14 mm, 8 mm and 4 mm and

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therefore have sections of  $6 \text{ mm}^2$ ,  $4.2 \text{ mm}^2$ ,  $2.4 \text{ mm}^2$  and  $1.2 \text{ mm}^2$ . One of ordinary skill in the art would readily understand that the sipes 12 of Suzuki have the same depth since different depths are not described.

**10) Claims 1-8 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (US 6405772) in view of Japan '502 (JP 2-182502).**

Suzuki et al, which is discussed above, is considered to anticipate claims 1, 4, 6-8 and 11-12. In any event: As to claim 1, it would have been obvious to one of ordinary skill in the art to provide the sipes of Suzuki et al such that along the length of the block the depth decreases in addition to the length decreasing (the volume of the sipes thereby necessarily decreasing along the length of the block) since Japan '502 suggests decreasing depth of sipes in blocks toward the trailing end of the block to improve wear resistance.

As to claim 2, note top left of Japan '502 which describes the depths of the sipes as follows:  $d1 = 11 \text{ mm}$  and  $d2, d3 = 15 \text{ mm}$ .

As to claim 3, note Japan '502's teaching to change sipe depth (claim 3 does not appear to require a plurality of wells on each of the at least two lines).

As to claim 4, note the length and width of the sipes described by Suzuki et al in the example (claim 4 does not appear to require a plurality of wells on each of the at least two lines).

As to claim 5, note Japan '502's teaching to change sipe depth.

As to claim 6, note that only four sipes are used in each block.

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As to claim 7, note that there are no sipes (zero sipes) between the shortest sipe having a length of 4 mm at the block edge. A change of one sipe to zero sipes thereby being defined so as to satisfy claim 7.

As to claim 8, note the suggestion from Japan '772 to locate the sipes in the block such that they are at about 90 degrees with respect to the block face.

As to claim 11, note the length and width of the sipes described by Suzuki et al in the example.

As to claim 12, note that Suzuki et al provides isolated sipes in all of the blocks of the tread.

**11) Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (US 6405772) in view of Japan '502 (JP 2-182502) as applied above and further in view of Tagashira et al (US 5679186).**

As to claims 9 and 10, it would have been obvious to one of ordinary skill in the art to incline the sipes as shown by Tagashira et al since Tagashira et al teaches that such inclination improves uneven wear.

Japan '613

**12) Claims 1-2, 4, 6-8 and 11-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Japan '613 (JP 5-77613).**

The claimed tread and tire fail to require all of the tread elements of the tread to have the claimed wells and volume difference. The wells clearly read on the small holes 14. In figure 2, the tread comprises blocks having more holes in a front section



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than the rear section and blocks having more holes in the rear section than the front section. In any event: it would have been obvious to provide the holes of Japan '613 such that the claimed volume difference is satisfied since (a) Japan '613 shows arranging the holes such that more holes are at one block section than another block section and (b) Japan '613 suggests using holes of the same size (the difference in number of holes and the use of same size holes resulting in the claimed volume difference).

**13) Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '613 (JP 5-77613) as applied above and further in view of Japan '407 (JP 4-218407).**

As to claim 3, the claimed different depths for the holes would have been obvious in view of Japan '407's teaching to use different depth holes to reduce wear.

**14) Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '613 (JP 5-77613) as applied above and further in view of Japan '502 (JP 2-182502) and at least one of Japan '107 (JP 62-59107) and Great Britain '975 (GB 546975).**

As to claims 3 and 5, it would have been obvious to provide the holes of Japan '613 with the claimed different depths in view of (a) Japan '613's teaching to use the holes to uniform rigidity and improve abrasion resistance, (b) Japan '502's teaching to use different depth sipes to improve wear resistance and (c) Japan '107's suggestion to reduce abrasion using either holes or sipes and/or Great Britain '975 teaching to provide holes in a tread with different depths.

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15) **Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '613 (JP 5-77613) as applied above and further in view of Great Britain '975 (GB 546975).**

As to claims 9 and 10, it would have been obvious to provide the holes of Japan '613 with the claimed different angles in view of Great Britain '975's teaching that inclined holes and perpendicular holes are alternatives (figure 4).

Remarks

16) The remaining references are of interest.

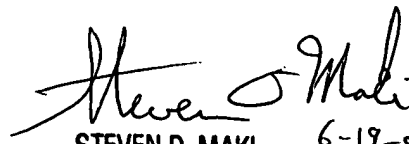
17) No claim is allowed.

18) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki  
June 19, 2003

  
STEVEN D. MAKI  
PRIMARY EXAMINER  
-GROUP 1300-  
A- 1733  
6-19-03